

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

See form PCT/ISA/220

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year) See form PCT/ISA/210 (page 2)

Applicant's or agent's file reference
See form PCT/ISA/220

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/EP2005/001608

International filing date (day/month/year)

February 17, 2005

Priority date (day/month/year)

March 16, 2004

International Patent Classification (IPC) or both national classification and IPC

E21D11/10, E04G21/04

Applicant

CONSTRUCTION RESEARCH & TECHNOLOGY GMBH

1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input checked="" type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the International Searching Authority

[logo] European Patent Office - P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx - 31 651 epo nl
Fax +31 70 340 - 3016

Authorized officer

Garrido Garcia, M
Tel. +31 70 340-4468

[seal:] European Patent Office

10/593001

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2005/001608

Box No. I	Basis of this opinion
1.	<p>With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.</p> <p><input type="checkbox"/> This opinion has been established on the basis of a translation from the original language into the following language, which is the language of the translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).</p>
2.	<p>With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:</p> <p>a. type of material</p> <p><input type="checkbox"/> a sequence listing</p> <p><input type="checkbox"/> table(s) related to the sequence listing</p> <p>b. format of material</p> <p><input type="checkbox"/> in written format</p> <p><input type="checkbox"/> in computer readable form</p> <p>c. time of filing/furnishing</p> <p><input type="checkbox"/> contained in the international application as filed</p> <p><input type="checkbox"/> filed together with the international application in computer readable form</p> <p><input type="checkbox"/> furnished subsequently to the Authority for the purposes of search</p>
3.	<p><input type="checkbox"/> In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.</p>
4.	<p>Additional comments:</p>

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY (ATTACHMENT)**

International application No.
PCT/EP2005/001608

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1 Statement

Novelty	Yes:	Claims 2,3
	No:	Claims 1,4-9

Inventive step	Yes:	Claims 2
	No:	Claims 1,3-9

Industrial applicability	Yes:	Claims: 1-9
	No:	Claims:

**2 Citations and explanations
See attachment**

Box No. VII Particular deficiencies of the international application

It was determined that the international application exhibits the following deficiencies in form or content:

See attachment

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY (ATTACHMENT)**

International application No.
PCT/EP2005/001608

Reference is made to the following documents:

D1: US-A-3 224 203

D2: US-A-5 851 580

For Box V.

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The present application does not meet the requirements of PCT Article 33(1) because the subject matter of Claim 1 is not novel within the meaning of PCT Article 33(2).

1.2 Document D1 discloses (the references in parentheses refer to this document) a device for coating the inner surface of a tunnel section with air-placed concrete exhibiting:

- a) a spray nozzle (8),
- b) a holder (7),
- c) a post (6), and
- d) a connector for a pipe (9) for supplying air-placed concrete found on the spray nozzle (8),

wherein the holder (7) and the spray nozzle (8) are each movable through joints, and wherein

e) a joint (6), which connects the post (6) and the holder (7) together and positions the holder (7) in such a way that the holder (7) is rotatably movable around the vertical axis,

f) a joint (23), over which a part (28) of the holder (7) facing the spray nozzle (8) can be raised upwards and lowered downwards,

g) a joint, of which the part (28) of the holder (7) facing the spray nozzle can be telescopically extended or retracted (see column 3, lines 47 to 50),

h) a joint (34), over which the spray nozzle (8) is rotatably movable around the longitudinal axis of the part (28) of the holder (7) facing the spray nozzle (see column 3, lines 52 to 55).

i) a joint, over which the spray nozzle (8) is movable in such a way that the rear opening of the spray nozzle (8) can move closer to or farther away from the longitudinal axis of the part (28) of the holder (27) facing the spray nozzle (8) (see column 3, lines 51 to 52),

are present,

wherein a controlling device (44) exhibiting several control levers (44) is provided with which the movements of the holder and the spray nozzle can be directed. The group of hand levers for controlling the joints of the spray nozzle (8) can be considered as a first controlling device, and the group of hand levers for controlling the joints of the holder (7) can be considered as a second controlling device. These first and second controlling devices correspond to the controlling devices k) and l) of Claim 1.

1.3 Document D1 discloses all the features of Claim 1, which is therefore not novel (Article 33(1), (2) PCT).

2. The combination of features contained in dependent Claim 2 is neither known from nor suggested by the prior art. The reasons for this are as follows: no document from the prior art describes the feature of operating several joints of a device for coating the inner surface of a tunnel section using a single joystick. Claim 2 is therefore novel.

2.1 The problem addressed by this feature can therefore be considered as that of simplifying the control of the spray nozzle. The feature contained in Claim 2 allows a reduction in the number of joints, which results in a more precise control of the spray nozzle. All the documents known from the prior art use a control lever for each joint, and the solution to the above-cited problem consists, in some known documents, in partially automating the control of the spray nozzle, but not through a concentration of the control to two joysticks. The solution of Claim 2 is therefore also considered novel.

3. Claim 3 refers to a partially manual and partially computer-operated controlling device. This feature, in the light of the control described in Document D2,

can not be considered novel. D2 describes a controlling device with which the movements of the spray nozzle and the holder can be partially controlled manually (see column 4, lines 16 to 20).

4. Claims 4–9 do not contain any features that, in combination with the features of any claim to which they refer, fulfill the requirements of PCT with regard to novelty.

For Box VII.

Certain observations on the international application

5. Contrary to the requirements of Rule 5.1 a) ii) PCT, neither the relevant prior art revealed in Document D1 nor this document were cited.